

## CITY OF FRANKLIN

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**TO: COMMERCIAL BUILDERS, CONTRACTORS AND OWNERS**

### **CITY OF FRANKLIN INSPECTION SERVICES 414-425-0084**

Justin Ligoeki - Director of Inspection Services/Plumbing Inspector

Jason Hendrix - Chief Building Inspector

Ted Juerisson - Building Inspector

Korey Schuett - Building Inspector

Steve Froemming - Chief Electrical Inspector

### **CITY OF FRANKLIN FIRE DEPARTMENT 414- 425-1420**

**James Mayer**

**Fire Chief**

**SCOPE:** This list of inspections is intended to assist the owner and the contractors to understand what inspections are required and at what stage of construction to call and schedule inspections for Building, Plumbing, Electrical, HVAC and Fire related stages of construction work.

### **KEY TO COLOR CODED SECTIONS**

<b>BLACK =</b>	<b>Building, Plumbing, Electrical or HVAC Inspections</b>
<b>RED =</b>	<b>Fire Dept. Inspections</b>
<b>BLUE =</b>	<b>Important Reminders</b>

### **SCHEDULING INSPECTIONS:**

All inspections that are made with Inspection Services must be scheduled **24 hours** before the date of the inspection. **Call Inspection Services at 414-425-0084 to schedule inspections; the Clerical Staff schedules all Building, Plumbing, Electrical, and HVAC Inspections.**

**Fire Safety Consultants Inc. (FSCI) is a Delegated Agent of the State of Wisconsin DSPS and performs all inspections and testing on behalf of the Franklin Fire Department for all new systems and systems with modifications/additions of over 20 devices/heads and requires a minimum of 72-hour notice (847-697-1300). Franklin Fire Department does not perform inspections or testing for projects with minor modification permits of under 20 devices/heads, a letter of NFPA compliance or testing record is required when the project is complete.**

This is a generalized list of Building, Electrical, Plumbing, HVAC, Utility, and Fire inspections required for most commercial, industrial, institutional, and multi-family building projects. Not every inspection that is on this list is required on every job.

**Call Inspection Services or the Fire Department if you question whether an inspection is required or applies to your project.**

**PLANS AT SITE: ALL Plans approved by E-plan or the State of Wisconsin Dept. of Safety and Professional Services, City of Franklin Inspection Services, Franklin Fire Department, including plats of survey, site plans, plumbing plans, lighting plans, revisions to approved plans, component plans, (structural steel, pre-cast, trusses, HVAC, fire alarms, sprinklers) and structural engineering, shall remain at the construction site until the issuance of an occupancy permit.**

## LIST OF INSPECTION TYPES

- 1 **FOOTING:** When footing forms are set up and reinforcing is in place, before pouring concrete. [Each footing pour must be inspected.](#)
  - a) Reinforcing steel must be installed, lapped and tied per specifications, with corner bars installed and supported on chairs.
  - b) If footing contains more than 20 feet of rebar, the reinforcing must be used as the grounding electrode conductor. Contact the electrical contractor.
  - c) A footing recertification form completed/signed by the surveyor shall be submitted prior to the initial footing inspection for new stand-alone buildings (Note: this does not apply to additions).
- 2 **FOUNDATION WALLS:**
  - a) **POURED WALL, PRE-POUR INSPECTION:** When foundation and/or wall forms are in place, reinforcing steel is installed, prior to pouring concrete. [Each foundation pour must be inspected.](#)
  - b) **FOUNDATION:** Before backfilling, when concrete block or poured concrete walls are in place, prior to backfilling. Drain tile must be installed, stoned and foundation insulation if required is in place. [Each portion of the foundation to be backfilled must be inspected.](#)
- 3 **ABOVE GRADE WALLS:**
  - a) When wall forms or block walls are in place, reinforcing steel is installed, prior to pouring concrete or grouting. [Each wall pour must be inspected.](#)
- 4 **ONSITE UTILITY LATERALS:**
  - a) **OUTSIDE SEWER, WATER LATERAL, COMBINATION WATER AND FIRE PROTECTION LATERALS AND STORM SEWER LATERALS:** Inspect water and fire protection laterals, and storm sewer while on test, prior to covering work.
    - i) The Chief Plumbing Inspector and FSCI for combination fire/domestic.
    - ii) Underground hydrostatic test for fire main or combination main shall be tested at 200 psi for 2 hours, pressure test and the underground flush must be witnessed by the FSCI.
  - b) **DEDICATED FIRE PROTECTION LATERALS:** Before covering work. Both the Plumbing Inspector and FSCI test and the underground flush must be witnessed by the FSCI.
  - c) **PRIVATE FIRE HYDRANT INSTALLATIONS:** Hydrants shall be inspected by the FSCI and the Franklin Water Utility, before being put into operation.

### **NOTICE TO PLUMBING CONTRACTORS**

Some areas of Franklin (portions of South 27<sup>th</sup> Street and West College Avenue) are served by the City of Milwaukee Water Utility. Milwaukee's Water Utility has specific requirements for piping materials that may be used for water laterals. Please contact the City of Milwaukee Water Utility at 414-286-2830 for their specific requirements.

#### **5 OFFSITE UTILITY LATERALS (In an easement or the ROW):**

- a) **Offsite utilities are inspected by the Franklin Engineering Department, Franklin Water Utility, or consulting engineering firms. Call the Engineering Department at 414-425-7510 to arrange inspections.**

#### **6 STRUCTURAL FRAMING AND ROUGH FRAMING INSPECTIONS:**

- a) **STRUCTURAL INSPECTION:** Structural steel, pre-cast concrete beams and columns, steel floor and roof deck, pre-cast concrete floors, pre-cast concrete walls and other components. When the building structural component installation is complete. Inspection will check the structural components as well as the welded and bolted connections. [Plans and engineering specifications for structural components shall be submitted prior to scheduling this inspection.](#)

#### **7 UNDER FLOOR SLAB INSPECTIONS:**

- a) **UNDER FLOOR ELECTRICAL:** Inspect before grading floor or pouring floor slab or pouring concrete.
- b) **UNDER FLOOR PLUMBING:** Inspect before grading floor or pouring floor slab or pouring concrete. A test is required on all plumbing.
- c) **UNDER FLOOR DUCTWORK:** Inspection for bedding, pitch, and insulation before covering.

#### **8 CONCRETE SLABS, SLABS ON GRADE AND FLOORS:**

- a) **FLOOR SLABS:** Gravel/stone, below grade insulation, below slab, foundation perimeter insulation and vapor barrier with seams taped shall be inspected before pouring floor or slab.
- b) **ALTERATIONS AND CUTTING OF FLOOR SLABS:** When slab has been cut for any change or alteration below the slab.

#### **9 ROUGH INSPECTIONS:**

- a) **ROUGH PLUMBING:** When waste and vent and water lines are installed, but prior to rough framing inspection. [Tests are required on all plumbing.](#)
- b) **ROUGH ELECTRICAL:** When rough-in of electrical is completed, before rough framing inspection.
- c) **ROUGH CARPENTRY:** After electrical and plumbing has been inspected. Do not cover work or install insulation until rough framing inspection has been approved. [Department of Safety and Professional Services approved Truss plans shall be on site.](#)
- d) **FIRESTOPPING:** Inspection of some of the fire stopping methods and materials may be done at this time. [Fire stopping plans and details shall be on site.](#)
- e) **ROUGH HEATING AND DUCTWORK:** After electrical and plumbing have been

inspected. Do not cover work or install insulation until rough framing inspection has been approved.

**f) ROUGH EXHAUST HOODS AND DUCTWORK**

**g) KITCHEN EXHAUST HOODS & DUCTWORK:**

- i) Light test on all welded seams, for Type 1 hoods.
- ii) Duct wrap, for Type 1 Hoods. [Specifications shall be on site for the inspector.](#)

**h) FIRE ALARM ROUGH: Joint inspection by FSCI and Inspection Services**

**i) FIRE SUPPRESSION SPRINKLER ROUGH: Inspection by FSCI**

**j) FIRE (FDC) LOCATION INSPECTION: Inspection by FSCI prior to insulation and drywall.**

**10 WALL, INWALL AND CEILING SYSTEMS:**

**a) FIRE WALLS, SMOKE WALLS, FIRE BARRIERS:** Where multiple layers of drywall are required as part of the firewall design or where channel is used in conjunction with the drywall installation, the taping, channel of the first layer of drywall shall be inspected by the Building Inspector before subsequent layers of drywall are installed. **Each drywall layer(s) must be inspected.** Wall type and rating must be stenciled on walls when required.

**b) INSULATION & ENERGY:** When insulation and vapor barrier have been installed, before covering or installing drywall.

**c) FIRE ALARMS**

**d) CARBON MONOXIDE DETECTION SYSTEMS**

**e) FIRE SUPPRESSION SPRINKLERS**

**11 PRE-CEILING TILE INSTALLATION INSPECTION:** When electrical, including fixtures, fire sprinklers and piping, fire alarm cabling and HVAC ductwork is installed prior to installing any ceiling tile.

**a) FIRE DEPARTMENT ABOVE CEILING**

- i) Fire suppression sprinklers (FSCI)
- ii) Fire alarms, smoke alarms (FSCI)

**b) INSPECTION SERVICES ABOVE CEILING**

**c) ELECTRICAL INSPECTION ABOVE CEILING**

**d) PLUMBING INSPECTION ABOVE CEILING**

**12 DRIVE APPROACH OR CURB RETURNS:** When forms are in place, prior to pouring. Franklin Engineering Department will do the inspection.

**13 PRE – FINAL/OCCUPANCY INSPECTIONS:**

**a) FIRE ALARM:** All fire alarm pull stations, horns, strobes, smoke and carbon monoxide detectors shall be inspected, tested by the [Building Inspector and the FSCI.](#)

- i) [Please have your contractor Pre-Test the alarm system for correct operation before requesting this inspection. Inspection will be terminated if it is apparent that the system has not been pre-tested by the installer.](#)

- ii) Please have electrical contractor or fire alarm installer present to assist in operation and testing including resetting of the system.
  - iii) For monitored systems, please contact monitoring company to arrange for testing mode, before testing time and date.
  - iv) **Fire alarm system inspections will not be scheduled as a portion of the occupancy inspection, call for separate alarm inspection prior to the date of the building final.**
  - v) Measure sound pressure levels of audible alarms for compliance with approved plans and code standards.
  - vi) Inspect operation of strobes and verify candela rating of each device for compliance with the approved plans and code standards.
  - vii) Operation of duct dampers, smoke detectors and for control of HVAC equipment shut down.
  - viii) Release of fire doors, smoke doors and other hold open devices.
  - ix) Pressurization and smoke exhaust systems operation.
  - x) Twenty-four (24) hour battery test after passing the tests above.
  - xi) Test of the monitoring system and telephone lines.
  - xii) Provide a printout or a log file of the devices as tested.
- b) **FIRE SPRINKLER TEST AND PRELIMINARY FIRE DEPARTMENT INSPECTION:**  
Fire sprinklers shall be tested and witnessed prior to putting the system into operation.
- c) **FIRE PUMP TEST:** Prior to putting pumps into operation.
- d) **FIRE SPRINKLER:** Conduct FORWARD FLOW TEST AND BACKFLOW TEST.
- e) **STANDPIPE:** Check Fire Department connections for 2 ½ inch and 1 ½ inch hose connections and pressure reducing valves (PRV) when required.
- f) **KITCHEN HOOD and SUPPRESSION SYSTEM:** Inspection tests suppression system discharge, gas valve, and electrical shut off or device closures.
- g) **EMERGENCY GENERATOR TEST:** The emergency generator and transfer switch must be tested to verify that emergency generator starts and power transfers to emergency power within 10 seconds and all code required emergency lighting is operational. Please have the contractor test the generator and transfer system for correct operation before requesting this inspection.
- h) **EMERGENCY LIGHTING:** The Wisconsin IBC includes requirements for lighting levels for egress path. This inspection needs to be done when it is dark and shall be scheduled a week before the date requested, all inspections are pending staff availability. **Note: Inspections required during non-working hours are assessed a fee of \$90 per hour (two hours minimum). The fee must be paid in advance of the inspection.**
- i) Please have your contractor test the EM lighting system for correct operation and lighting levels before requesting this inspection.
  - ii) The Emergency lighting test consists of the following two inspections:
    - (a) **Lighting Level Test:** The inspection is done during the evening when dark. The lighting levels are measured with a light meter to verify that the egress path lighting level meets the minimum code requirement.

(b) **Battery Test:** The inspection is done during the day; the power to the emergency lighting is turned off and the lights must operate on battery for a minimum of 90 minutes. **(This inspection is not required when an emergency power source such as a generator is provided.)**

i) **EXIT LIGHT LOCATIONS:** This inspection may be made at either rough-in stage or at pre-final. To determine that the number of lights, distance between exit lights and locations of illuminated exit signs appear to be correct, the Building Inspector shall make this inspection. Furniture/partitions and other items may require the installation of additional exit lights.

j) **WATER METER:** Water meter shall be installed following the Plumbing Inspector's final inspection; please contact City of Franklin or Milwaukee Water Utility depending on source of water to schedule the meter installation.

k) **ELEVATOR AND ELEVATOR SHAFT:** Inspect the elevator shaft to verify that there are no holes or unprotected penetrations in the rated walls, alarms and/or suppression systems are in place and operational.

l) **FIRE DEPARTMENT ELEVATOR INSPECTION:** FSCI to check fire alarm recall and Fire Department manual control, correct car size and elevator is correctly identified as stretcher accessible.

#### **14 INFORMATION SUBMITTALS (PRIOR TO FINAL INSPECTIONS):**

a) **EASEMENTS AND CERTIFICATIONS:** Including certification of grades for swales, retention and detention ponds, easements for water main, or other utility or improvements.

b) **ASBUILT PLANS (DIGITAL):** Submit As built plans to Inspection Services prior to occupancy. Plans may be in "AutoCAD" or PDF format, PDF format is preferred, include all pages for Building, Plumbing, HVAC, Electrical, Fire Alarms, and Fire suppression sprinklers.

c) **BALANCING REPORT/CALCULATIONS:** At completion of the HVAC system a balancing report/s shall be reviewed and accepted by the HVAC system designer.

d) **CERTIFICATION OF FINAL HVAC BALANCING CALCULATIONS:** A written acceptance from the HVAC system designer and or Supervising Professional stating that they have reviewed the balance calculations and that they accept the work as being in compliance with the design or require corrections.

e) **FIRE DEPARTMENT ASBUILT PLANS:** As-Built review by FSCI, if required, must be completed and approved prior to final inspection.

f) **DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES COMPLETION STATEMENT:** One copy of the form, sent to both the City and the State of Wisconsin Department of Safety and Professional Services.

g) **DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES ELEVATOR INSPECTION CERTIFICATE:** Inspection and certificate must be done and in place prior to placing elevator/s in use.

h) **CERTIFICATION OF GRADES FOR RETENTION/DETENTION PONDS:** Submit to the Franklin Engineering Department before occupancy.

#### **15 PRELIMINARY FINAL INSPECTIONS, ALL TRADES:** The owner or contractor may request a preliminary occupancy inspection. Construction shall be sufficiently close to being complete to warrant this inspection. The contractor will be given a list of items not completed or not in

compliance with code. These items shall be corrected prior to requesting the occupancy inspection. **PRELIMINARY FINAL INSPECTIONS ARE ONLY DONE WITH THE APPROVAL OF THE DIRECTOR OF INSPECTION SERVICES OR FIRE CHIEF.**

#### **16 FINAL INSPECTIONS:**

- a) **ELECTRICAL FINAL:** When all electrical wiring is finished and fixtures have been installed.
- b) **PLUMBING FINAL:** When all waste and vent and water piping and plumbing fixtures have been installed.
- c) **HVAC EQUIPMENT AND DUCTWORK:** Inspection of equipment, ductwork fire dampers, smoke dampers and control dampers. Test ductwork, smoke detectors, fire alarms for HVAC equipment shut down.
- d) **FIRE DEPARTMENT FINAL: FSCI Completes system finals. If Inspection Services Department has any concerns, questions, or feels there is an occupancy of interest for the Fire Department, the Inspection Services Department shall call the Fire Chief for further guidance.**
- e) **PLANNING DEPARTMENT FINAL:** Verify that construction corresponds to the approved plans for landscaping, parking and building design.
- f) **ENGINEERING DEPARTMENT FINAL:** Verify that grading, utility installation, driveways, curbs, pavement, and public improvements have been constructed per the approved plans.
- g) **BUILDING FINAL or OCCUPANCY:** When building is complete and the drive approach and watermeter are installed. When all of the building life safety and fire protection items have been completed and inspected.
- h) **COMPLETION STATEMENTS:** The Designer, Architect, or Engineer's completion statements shall be submitted for each of the following plan submittals.
  - (1) Building construction
  - (2) HVAC
  - (3) Lighting

#### **NOTICE TO CONTRACTORS AND OWNERS:**

The provision to charge for reinspection fees is included in the Franklin Building Code. Please verify that your construction work is complete and ready for the inspection or reinspection you are requesting. Reinspection fees will be charged after the initial inspection and one reinspection of each inspection category. When work is not complete and ready for inspection or when the corrections have not been made, a reinspection fee will be assessed. Reinspection fees must be paid before an occupancy permit can be issued. **REMINDER: Permit fees are tripled when work is started without a permit.**



**FRANKLIN FIRE DEPARTMENT REQUIREMENTS  
FOR  
COMMERCIAL CONSTRUCTION**

1. Sprinkler and fire alarm plans and revisions must be submitted to FSCI (new systems or modification/addition involving more than 20 heads/devices) or the Fire Department for review and approval (existing system modifications/addition of 20 heads/devices or under) **before** the installation can start.
2. Fire Alarm and Sprinkler work may not start until plans have been reviewed and conditionally approved by the Fire Department.
3. The Fire Chief must approve location of the Fire Department Connection (FDC). The FDC must be within 50 feet of a fire hydrant.
4. Underground hydrostatic test for fire main or combination main shall be tested at 200# for 2 hours, pressure test and the underground flush must be witnessed by FSCI.
5. A rough inspection of the sprinkler installation is required before insulation or drywall is installed. Insulation and drywall can only be installed after they are approved by the Building Inspector.
6. A hydrostatic test of the sprinkler pipe and heads is required. The test is 2 hours in duration at a pressure of 200#.
7. Back flow, forward flow, and sprinkler riser call out must pass acceptance testing before occupancy is granted.
8. A 10" Bell and Strobe must be installed at or above the FDC.
9. The fire alarm system including pull stations, smoke detectors, carbon monoxide detectors, strobes, the system monitoring source and audible alarm, must be tested by FSCI and approved by the Fire Department before occupancy.
10. A Knox Box and keys for the building and riser room are required. The location is to be approved by the Fire Chief.
11. Burning of building debris is **NOT** allowed on the construction site.